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S/194/62/000/006/096/232
D288/D308

AUTHOR: Kasabov, I.

TITLE: A possibility of simultaneous measurement of drift mobility and life time of current carriers in semiconductors

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, abstract 6-4-18 e (Dokl. Bolg. AN, 1961, 14, no. 5, 451 - 453)

TEXT: The author shows the possibility of measuring life time of minority current carriers during the measurement of drift mobility by the method of d.c. emitter operation at low injection level and pulsed dragging field. The solution of the diffusion equation in linear approximation shows that the life time τ_p can be obtained

from such measurements by using the formula $\tau_p = \frac{\Delta t}{\Delta \ln (H/Vt)}$
where t - time and H - collector response. [Abstracter's note:
Complete translation.]

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KASABOV, I.; VITKOV, A.; GEROVA, E.

Measuring the life period and the drifting motion of carrier of
current load in to silicon method of direct transmitted current.
Doklady BAN 14 no.6:563-565 '61.

1. Predstavleno akad. G. Nadzhakov

KASABOV, Iordan

Silicon current rectifiers. Elektroenergija 13 no.1:13-17 Ja '62.

S/058/62/000/010/071/093
A061/A101

24,7700

AUTHORS: Kasabov, I., Vitkov, A., Gerova, Ye.

TITLE: Constant emitter current measurement of carrier lifetime and drift mobility in silicon

PERIODICAL: Referativnyy zhurnal, Fizika, no. 10, 1962, 35, abstract 10E272 ("Dokl. Bolg. AN", 1961, v. 14, no. 6, 563 - 565; summary in German)

TEXT: The possibility of measuring the carrier lifetime in Si by an improved constant emitter current method was verified. The lifetimes (τ) for n-type Si with ρ of the order of some ohms·cm ranged between 4.6 and 6.8 μ sec. The values of τ , determined by the given method, coincided with good accuracy with those determined by the Galkin-Vavilov method (RZhFiz, 1958, no. 4, 8601).

L. Galkina

[Abstracter's note: Complete translation]

Card 1/1

KASABOV, I.

Silicon high-voltage photoelectric transformers of sun
energy. Fiz mat spisanie BAN 5 no.3:224-225 '62.

KASABOV, I.

Vacuum apparatus without quartz tube for the crucibleless zone melting of silicon. Doklady BAN 15 no.8:817-819 '62.

1. Predstavleno chl.-korr. E. Dzhakovym.

KASABOV, I.; POPOVA, L.

The silicon nondislocated monocrystal needles from gaseous phase.
Doklady BAM 16 no.1:11-13 '63.

1. Predstavлено чл.-корр. Е. Бахаковым.

KASABOV, J. [Kasabov, I.]; KOLENTSOV, K.; TONCHEVA, L.

New method for phosphorus diffusion in silicon at low surface concentration. Doklady BAN 17 no.11:993-994 '64.

1. Institute of Physics of the Bulgarian Academy of Sciences.
Submitted July 3, 1964.

KASABOV, J. [Kasabov, I.]; TONCHEVA, L.

On the diffusion distribution of phosphorus in silicon at low
surface concentration. Deklady BAN 17 no.11:995-996 '64.

1. Institute of Physics of the Bulgarian Academy of Sciences.
Submitted July 3, 1964.

DONCHEV, Stefan, dots. inzh.; KASABOV, Ivan, inzh.; ANGELIEV, Vasil, inzh.; VARDEV, Petko, inzh.

Spray drying and utilization as pigment of the softening installation sludge in thermoelectric power plants in the rubber industry. Tekhnika Bilg 13 no. 2: 20-22 '64.

L 18085-66 LWP(t) LWP(c) DS/JD
ACC NR: AF6010172

SOURCE CODE: BU/0011/65/018/008/0727/0729

37

AUTHOR: Kasabov, J.; Toncheva, L.

ORG: Institute of Physics, Bulgarian Academy of Sciences

TITLE: Diffusion distribution of phosphorus in silicon at low surface concentration

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 8, 1965, 727-729

TOPIC TAGS: silicon, phosphorus, nitrogen, Gaussian distribution

ABSTRACT:

A new method of producing n-type diffusion layers in silicon at a low surface concentration of phosphorus was recently proposed (J. Kasabov, K. Kolentsov, L. Toncheva, Compt. rend. Acad. bulg. Sci., 17, 1964, No 11, 993). Subsequent investigations of the phosphorus distribution within the diffusion layer indicated an approximately exponential behavior (J. Kasabov, L. Toncheva, Ibid., 17, 1964, No 11, 995) which did not agree with theoretical prediction. The present article describes further studies (using the same experimental approach) searching for the causes of the above mentioned disagreement. Diffusion carried out in nitrogen atmosphere agreed well with a Gaussian distribution with a diffusion coefficient of $1.34 \cdot 10^{-12} \text{ cm}^2/\text{sec}$. All results point to the fact that during the diffusion in nitrogen the phosphorus atoms deposited at an earlier stage do subsequently evaporate. This paper was presented by Academician G. Nadjakov on April 14, 1965. Orig. art. has: 3 figures. [JPRS]

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Card 1/15

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NISNEVICH, M.L., kand.tekhn.nauk; KASABOV, I.A., inzh.

Dressing of gravel by the jigging method. Stroi.mat. 9 no.9:
5-9 S '63. (MIRA 16:10)

NISNEVICH, M.L., kand. tekhn. nauk; KASABOV, I.A., inzh.

Enriching gravel by the jigging method for the purpose of obtaining filler for high-strength concrete. Sbor. trud.
NIIzhelezobetona no. 8t3-29 '63 (MIRA 18:1)

KASABOV, Iv.

VRANSKI, V., dots.; IVANOV, Vl.; KASABOV, Iv.; MARINOV, V.; KORUEVA, L.

Experimental studies on the possibility of production of electrically induced sleep and of electrenarcosis; preliminary communication.
Suvrem. med., Sofia 5 no.1:21-24 1954.

1. Iz Instituta po meditsinska fizika pri Meditsinskata akademii
I.P.Pavlov, Plovdiv (direktor: dots. V.Vranksi) i Klinikata po
nervni bolesti pri Meditsinskata akademii V.Chervenkov, Sofia
(direktor: prof. G.Uzunov)

(SLEEP,
*electric induction)
(ELECTROMARCOSIS.)
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Kasabov, Tu.

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